ULTRA QUIET & OIL FREE

VACUUM MOTOR/PUMP

OWNER'S MANUAL

VP50

VP100

WWW.CALIFORNIAAIRTOOLS.COM

Customer Support
1-866-409-4581

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INTRODUCTION

⚠WARNING

This manual contains important instructions for operating this product. For your safety, and the safety of others, be sure to read this manual thoroughly before operating the product.

Failure to properly follow all the instructions and precautions can cause you and others to be seriously hurt or killed.

Thank you for purchasing a California Air Tools product.

Record the model and serial number indicated on the nameplate:

Model No. _____

Serial No. _____

Date of Purchase: _____

Store/Dealer: _____

How to find a local service center:

Even quality built equipment might need service or repair parts. Contact the California Air Tools Customer Service Department:

Phone: 1-866-409-4581

Online: WWW.CALIFORNIAAIRTOOLS.COM

Please provide the information below:

Model number and Serial number and specifications shown on the Model number/Serial number plate.

Part number or numbers shown in the parts list section of the owner's manual for your model.

A brief description of the trouble.

Do not return your product for service or parts to the store/dealer where purchased .

IMPORTANT SAFETY INSTRUCTIONS

Safety Messages & Signal Words:

⚠ DANGER

Indicates an immediate hazardous situation which, if not avoided, will result in death or serious injury to the operator or to bystanders.

⚠WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury to the operator or to bystanders.

⚠CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in moderate or minor injury to the operator or to bystanders.

NOTICE

Indicates a situation which, if not avoided, may result in damage to product components or other property.

⚠DANGER

KICKBACK

Moving parts can cause severe trauma.

Keep hands and feet away from rotating parts, tie up long hair, remove jewelry, and DO NOT wear loose clothing.

⚠DANGER

SHOCK

There is a danger of electric shock.

Use only undamaged electrical cords.

DO NOT touch bare wires or receptacles.

DO NOT operate air compressor in wet weather or in wet conditions.

DO NOT touch air compressor or cords if hands or feet are wet.

Ensure that all cords are free of damage before connecting to the power supply.

Ensure that you have a sufficient electrical supply for supporting the requirements of the motor.

⚠WARNING

RISK TO BREATHING

Dust or dust-like particulates caused by power-sanding, sawing, grinding, drilling or any other construction-like activities can contain contaminants that are harmful to breathe.

Always use your air compressor in a well-ventilated and clean area.

Never breathe the air that comes directly out of the air compressor or air hose. This air is not suitable for breathing.

Always wear approved safety equipment. When performing dust-creating activities, securely wear properly-fit face masks or respirators.

If you feel ill from breathing while operating your air compressor, stop and seek medical attention immediately.

⚠WARNING

HOT SURFACE

FIRE

Air compressor surfaces become hot during operation.

DO NOT touch hot surfaces, because they can cause severe burns.

Do not touch the air compressor's cylinder head. During operation, the cooling fins of the cylinder head and delivery pipe become hot.

Allow the air compressor to cool before touching it.

DO NOT place a storage cover on the unit during operation. Only place a cover on the air compressor after it has thoroughly cooled down.

⚠WARNING

FLYING OBJECTS

Flying objects can cause injury to the eyes, head and other parts of the body.

Air-powered equipment and power tools are capable of propelling items (metal chips, fasteners and particulates) at high speed into the air and could result in injury.

Always wear approved head and eye protection.

Never point the air stream at any part of your body, or at another person or animal.

When operating the air compressor, make sure all other people and animals maintain a safe distance.

Do not move the air compressor when the air tank is under pressure.

Never use the air hoses to pull or move the air compressor.

Keep the air compressor on a flat surface.

⚠WARNING

EXPLOSION

Exercise caution when using pressurized air.

To prevent injury and for your general safety, only use high-pressure hoses, fittings and couplings designed for use with air compressors.

Inspect all hoses, fittings and couplings for leaks and wear. When leaks and wear are detected, stop use and replace those items immediately. Do not repair.

Never leave pressurized air in the air tank when performing maintenance.

Never leave the air compressor unattended with the power supply in use and the air hose connected.

⚠WARNING

EXPLOSION

Improper care could lead to the air tank bursting or exploding.

Drain air tank daily or after each use to prevent moisture buildup in the air tank.

Rust can weaken the air tank and cause leaks or bursting. If rust is detected, replace tank immediately. Do not try to repair the air tank by welding, drilling or modifying it in any other way. These modifications can weaken the air tank and cause a hazardous condition.

If air tank develops a leak, replace the air tank immediately. Never repair, weld or make modifications to the air tank or its attachments.

Never make adjustments to the factory-set pressures.

Never exceed manufacturer's maximum-allowable pressure rating attachments.

Because of extreme heat, do not use plastic pipe or lead tin solder joints for a discharge line.

⚠WARNING

EXPLOSION

FIRE

Use caution to minimize risk of fire or explosion.

It is normal for the air compressor motor and pressure switch to produce sparks while operating. If sparks come in contact with vapors from gasoline or solvents, they may ignite and cause a fire or explosion.

Abrasive tools such as grinders, drills and other tools are capable of making sparks that can ignite flammable materials.

Always operate the air compressor a safe distance away from flammable items. Use in well-ventilated areas.

Never exceed the maximum rated pressure.

⚠CAUTION

Use caution when using extension cords.

Use an extension cord which is no more than 25 feet long and at least 14 gauge.

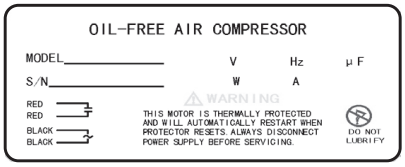
Using an excessively long or thin-wired extension cord will cause severe damage to the motor.

Use only a 3-wire extension cord that has a 3-blade grounding plug.

LOCATIONS OF IMPORTANT LABELS

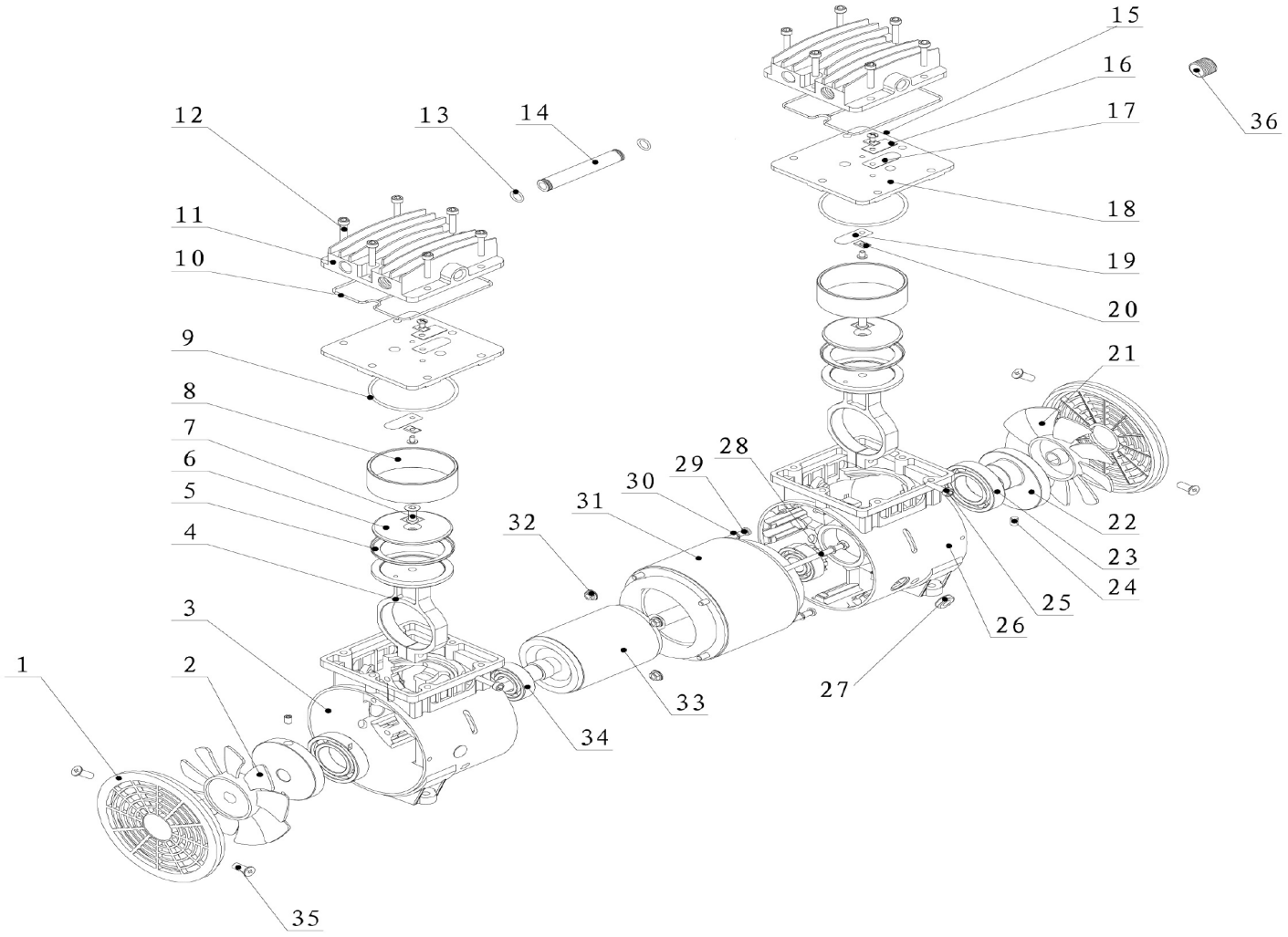
Read these important labels before operating.

These labels provide important safety and maintenance information. These labels should be considered as permanent parts of this product.. Should any of these labels become illegible, damaged or removed, please contact California Air Tools Customer Service department at 1-866-409-4581 for replacements.

	PRODUCT LABEL
1	
2	
3	 OIL-FREE AIR COMPRESSOR MODEL V Hz µF S/N W A RED RED BLACK BLACK WARNING THIS MOTOR IS THERMALLY PROTECTED AND WILL AUTOMATICALLY RESTART WHEN PROTECTOR RESETS. ALWAYS DISCONNECT POWER SUPPLY BEFORE SERVICING. DO NOT LUBRIFY

Model: VP50

VP100



NO.	Description	NO.	Description	NO.	Description	NO.	Description
1	Fan Cover	20	Metal Strengthen Sheet	39		58	
2	Fan	21	Fan	40		59	
3	Crank Case	22	Crank	41		60	
4	Connecting Rod	23	Bearing	42		61	
5	Piston Ring	24	Holding Screw	43		62	
6	Plate Pinch	25	Cheese Head Screw	44		63	
7	Pressure Plate Screw	26	Crank Case	45		64	
8	Cylinder	27	Leading-out Line Guard circle	46		65	
9	Cylinder Obturating Ring	28	Rotor Pin	47			
10	Cylinder Head Obturating Ring	29	Motor Screw	48			
11	Cylinder Head	30	Spring Washer	49			
12	Cylinder Head Screw	31	Rotor	50			
13	Connecting Hose Obturating ring	32	Lock Nut	51			
14	Connecting Hose	33	Stator	52			
15	Pan Head Screw	34	Bearing	53			
16	Limited Block	35	Bolt	54			
17	Gassing Valve Plate	36	Air Filter	55			
18	Valve Plate	37	Capacitor (not shown)	56			
19	Air Inflow Valve Plate	38		57			

PRE-OPERATION CHECKLIST

Package Contents & Assembly

Model: VP50 / VP100

Package contents:

Vacuum Pump/Motor

Owner's Manual

Air Filter

Capacitor

Assembly:

Attach the air filter to the exhaust port of the motor head.

Screw air filter into the motor head.(not too tight)

Attach the two red motor wires to the two red capacitor wires.

Attach the two black wires to the power supply cord.

Attach the yellow/green wire to ground.

Inspect for Damage

Before using the vacuum pump/motor inspect all parts for damage.

Do not use the vacuum pump/motor if any damage is found.

If damaged, have an authorized service center inspect and test the vacuum/motor to ensure that is working properly.

Save Packaging

Save all outside packaging in case you ever need to return the product for service or repair.

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Installation

Correct installation is your responsibility.

Make sure you have the proper installation conditions and that clearances do not block the air flow.

Mounting the product to a stable, rigid operating surface will produce less noise and vibration.

Be sure to connect the intake and exhaust plumbing to the correct inlet and outlet ports.

Please install the air filter before use.

Location

Use on Flat Surface

For proper operation, the vacuum must be placed on a flat surface with an incline no greater than 15 degrees.

⚠WARNING

EXPLOSION

FIRE

Use caution to minimize risk of fire or explosion.

It is normal for the air compressor motor and pressure switch to produce sparks while operating. If sparks come in contact with vapors from gasoline or solvents, they may ignite and cause a fire or explosion.

Abrasive tools such as grinders, drills and other tools are capable of making sparks that can ignite flammable materials.

Always operate the air compressor a safe distance away from flammable items. Use in well-ventilated areas.

Never exceed the maximum rated pressure.

Maintain a Clear Area

It is very important that the vacuum pump is positioned so that there is adequate airflow around the machine. There must be at least 2 feet of obstacle-free space surrounding and above the pump.

Blocking air flow over the vacuum pump in any way can cause the vacuum pump to overheat and shut down.

⚠WARNING

RISK TO BREATHING

Dust or dust-like particulates caused by power-sanding, sawing, grinding, drilling or any other construction-like activities can contain contaminants that are harmful to breathe.

Always use your air compressor in a well-ventilated and clean area.

Never breathe the air that comes directly out of the air compressor or air hose. This air is not suitable for breathing.

Always wear approved safety equipment. When performing dust-creating activities, securely wear properly-fit face masks or respirators.

If you feel ill from breathing while operating your air compressor, stop and seek medical attention immediately.

Electrical Power

Electrical Power Requirements

⚠DANGER

SHOCK

There is a danger of electric shock.

Use only undamaged electrical cords.

DO NOT touch bare wires or receptacles.

DO NOT operate air compressor in wet weather or in wet conditions.

DO NOT touch air compressor or cords if hands or feet are wet.

Ensure that all cords are free of damage before connecting to the power supply.

Ensure that you have a sufficient electrical supply for supporting the requirements of the motor.

Before using the vacuum pump, make sure you have a sufficient electrical supply for supporting the motor's requirements.

Use a dedicated circuit for the best results.

Low voltage and/or an overload circuit can cause the motor's overload protection system circuit breaker to trip.

Electrical Extension Cords

⚠CAUTION

Use caution when using extension cords.

Use an extension cord which is no more than 25 feet long and at least 14 gauge.

Using an excessively long or thin-wired extension cord will cause severe damage to the motor.

Use only a 3-wire extension cord that has a 3-blade grounding plug.

Inspect all electrical extension cords to ensure that they are free of damage.

When using an extension cord, use a heavy-duty cord that is no more than 25 feet long and at least 14 gauge.

Use only a 3-wire extension cord that has a 3-blade grounding plug.

OPERATING THE VACUUM PUMP

Save this manual for future reference.

⚠WARNING

This manual contains important instructions for operating this product. For your safety, and the safety of others, be sure to read this manual thoroughly before operating the product.

Failure to properly follow all the instructions and precautions can cause you and others to be seriously hurt or killed.

Introduction

This vacuum pump/motor features a compact structure, stable performance and easy operation.

The motor directly drives the eccentric wheel-connecting bar system, making the piston move reciprocally. The piston is made from a high-temperature-resistant and abrasion-resistant nonmetallic material, and is able to function without lubrication for a long time.

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Changing the Air Filter

The air filter is designed to reduce noise and help prevent particulates in the pump.

After being used for a period of time, the air filter will become clogged. This will reduce the air intake capabilities of the vacuum pump, reducing performance. Therefore, the air filter must be replaced regularly.

1. Open the lid on the air filter, then remove the old filter.
2. Replace it with a new filter, then close the lid.

Cleaning

Clean items with a soft brush, or wipe with a moistened cloth using a biodegradable solvent.

Do not use flammable liquids such as gasoline or alcohol. Always keep parts clean from dirt and dust for better performance.

⚠WARNING

HOT SURFACE

FIRE

Air compressor surfaces become hot during operation.

DO NOT touch hot surfaces, because they can cause severe burns.

Do not touch the air compressor's cylinder head. During operation, the cooling fins of the cylinder head and delivery pipe become hot.

Allow the air compressor to cool before touching it.

DO NOT place a storage cover on the unit during operation. Only place a cover on the air compressor after it has thoroughly cooled down.

⚠WARNING

FLYING OBJECTS

Flying objects can cause injury to the eyes, head and other parts of the body.

Air-powered equipment and power tools are capable of propelling items (metal chips, fasteners and particulates) at high speed into the air and could result in injury.

Always wear approved head and eye protection.

Never point the air stream at any part of your body, or at another person or animal.

When operating the air compressor, make sure all other people and animals maintain a safe distance.

Do not move the air compressor when the air tank is under pressure.

Never use the air hoses to pull or move the air compressor.

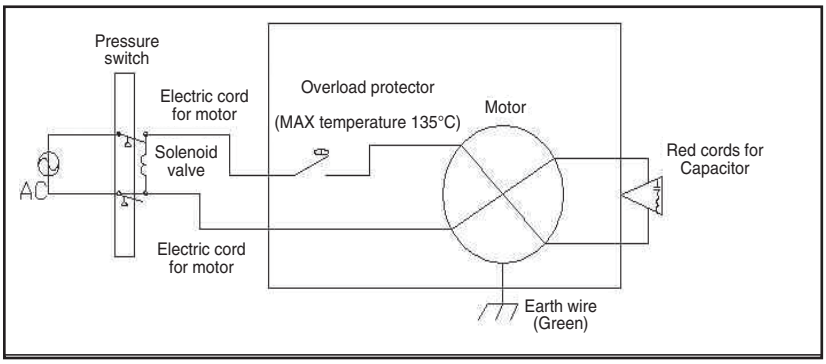
Keep the air compressor on a flat surface.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	POSSIBLE SOLUTIONS
		.
The vacuum pump stopped and does not start.	Overloaded because of motor overheating.	Check that the main voltage corresponds to specifications. An extension cord that is too thin or too long can cause a voltage drop and cause the motor to overheat. Allow the motor to cool down. Use heavy duty extension cords. Ensure that the unit is plugged into a socket as close as possible to the consumer unit or fuse box.
	Motor windings are burned out.	Contact Customer Support.
The motor does not start and makes a humming noise.	Capacitor is burned out.	Replace starter capacitor.
The motor does not start or starts very slowly.	Low voltage supply to the motor.	Check that the main voltage corresponds to specifications. An extension cord that is too thin or too long can cause a voltage drop and cause the motor to overheat. Allow the motor to cool down. Use heavy duty extension cords. Ensure that the compressor is plugged into a socket as close as possible to the consumer unit or fuse box.
The compressor is noisy with metallic clangs.	Compressor head gasket broken or valve faulty.	Stop the motor and contact Customer Support
.	Compressor head gasket broken or valve faulty.	Stop the motor and contact Customer Support
	.	.

SPECIFICATIONS

Electrical Circuit



CALIFORNIA AIR TOOLS INC. LIMITED WARRANTY

This warranty is limited to products distributed by:

California Air Tools, Inc.
8560 Siempre Viva Road, Unit 3
San Diego, CA 92154

Limited Warranty

California Air Tools Inc. will repair or replace, free of charge, to the original retail customer who purchased a California Air Tools, Inc. product from an authorized dealer, distributor or distributor's dealer in North America or Canada.

This warranty does not transfer to subsequent owners.

California Air Tools Inc. will repair or replace, at its option, any parts that are proven by an authorized service center to be defective in material or workmanship under normal use during the applicable warranty time period as stated below. This limited warranty covers the cost of the replacement parts and labor for all defects when installed by an authorized service center. Transportation charges are the responsibility of the customer. Any part replaced under warranty becomes the property of California Air Tools Inc.

All parts replaced under warranty will be considered as part of original product, and any warranty on those parts will expire coincident with the original product warranty.

Limited Warranty Periods

Non-commercial / Non-rental (personal use by a retail customer):	1 year parts and labor
Commercial / Rental (usage for income, business use):	1 year parts and labor

The limited warranty period begins on the date of retail purchase by the original purchaser.

Disclaimers, Limitations of Remedies & Exclusions

This warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.

Disclaimer of Other Warranties

To the fullest extent permitted by applicable law, this limited warranty is exclusive and expressly in lieu of any and all other warranties, including, without limitation, any implied warranties of merchantability or fitness for a particular purpose or any other implied warranties that may arise from the course of dealing or usage of the trade. California Air Tools Inc. hereby declaims and excludes all other warranties. To the extent that California Air Tools Inc. products are consumer products under applicable federal and state law with respect to any customer, the duration of any implied warranties (including but not limited to implied warranties of merchantability or fitness for a particular purpose) are limited to the shortest duration permitted by applicable law or the Limited Warranty period provided herein, whichever is longer.

Limitations of Remedies

California Air Tools Inc. shall not be liable to customer, or anyone claiming under customer, for any other obligations or liabilities, including but not limited to, obligations or liabilities airing out of breach of contract or warranty, negligence or other tort or any theory of strict liability, with respect to the product or California Air Tools Inc. acts or omissions or otherwise. To the fullest extent permitted by applicable law, California Air Tools Inc. shall not in any event be liable for incidental, compensatory, punitive, consequential, indirect, special or other damages, including but not limited to loss of use, loss of income, loss of time, loss of sales, injury to personal property, or liability customer incurs with respect to any other person, or any other type or form of consequential damage or economic loss.

Exclusions

In addition to the foregoing disclaimers, limitations and terms, this limited warranty shall not apply to and does not cover accessories, nor does it cover products that are in any way subject to any of the following:

1. Improper setup, installation or storage.

2. Lack of proper maintenance and service.

3. Accident, damage, abuse or misuse.

4. Abnormal operating conditions or applications.

5. Repair or modification by customer or any third party without written consent of California Air Tools Inc.

6. Use under operating conditions or in applications not recommended by California Air Tools Inc.

7. Normal wear.

8. The use of accessories or attachments not recommended by California Air Tools Inc.

9. Acts of God.

The application of these exclusions will be determined at the sole discretion of California Air Tools Inc.

Registration

Warranty registration with California Air Tools Inc. is required on all products.

You can mail the enclosed registration form or fill out the registration form on the California Air Tools website.

Warranty is also available by keeping and showing your original receipt from the date of purchase to an Authorized California Air Tools Service Center.

Service

Do not return your air compressor to the place of purchase.

For all customer service inquiries call California Air Tools Customer Service at 1-866-409-4581 or visit WWW.CALIFORNIAAIRTOOLS.COM

PRODUCT REGISTRATION

To register your product, please complete the information below and mail to the mailing address at the end of this page.

1. Personal Information:

Full Name (Include Middle Initial): _____

Mailing Address: _____

City:_____ State:_____ Zip Code: _____

Phone Number: _____

E-mail Address: _____

(Check here to receive product information and offers via e-mail)

(Check here to receive product information from other companies via e-mail)

2. Product Information:

Date of Purchase: _____(MM / DD / YYYY)

Model Number: _____

Serial Number: _____ (Found on name plate)

Purchased Location:_____

Purchase Price: _____

Type of Primary Use for this Product: Home Recreation Emergency Rental Commercial

Other_____

Features Influencing Product Purchase: Brand Portability Power Rating Price Warranty

Other Features (describe) _____

What other Power Equipment are you interested in purchasing in the future? _____

Thank you for registering your product.

Mail to:
California Air Tools
8560 Siempre Viva Road, Unit 3A
San Diego, CA 92154